

**REMARKS**

Claims 1-13 have been examined and rejected on prior art grounds. Claims 4 and 8-9 are hereby canceled without prejudice or disclaimer, and claims 14-19 are hereby added.

***Claim Rejections - 35 U.S.C. § 103(a)***

The Examiner has rejected claims 1, 2, 4-8, and 11-13 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,253,185 to Arean (hereinafter “Arean”) in view of U.S. Patent No. 5,654,952 to Suzuki et al. (hereinafter “Suzuki”). The Examiner has rejected claims 3 and 9 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Arean in view Suzuki and further in view of U.S. Patent No. 6,456,963 to Araki (hereinafter “Araki”). The Examiner has rejected claims 3 and 9 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Arean in view Suzuki and further in view of U.S. Patent No. 5,241,603 to Akagiri (hereinafter “Akagiri”). The Examiner has rejected claim 10 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Arean in view Suzuki and further in view of U.S. Patent No. 5,559,900 to Jayant et al. (hereinafter “Jayant”). Applicants submit that the claims are patentable.

For example, claim 1 recites a masking threshold calculator that approximates an energy distribution curve to a distribution pattern of noise threshold levels calculated by a psychoacoustic model. The masking threshold calculator includes a quantization noise curve pattern estimator that adjusts quantization noise distribution by relatively adjusting a gain for each frequency band based on the calculated energy distribution curve which connects the

calculated energy levels in order to approximate the energy distribution curve to the distribution pattern of noise threshold levels.

On page 2 of the Office Action, the Examiner contends that Arean's quantization corresponds to the claimed approximation of the energy distribution curve. However, Arean discloses that the perceptual model 106 computes a perceptual threshold value within each factor band, and these computed threshold values are used for allocating noise to the quantized coefficients (col. 12, lines 4-21). Clearly, Arean's quantization is *based upon the perceptual threshold values calculated by the perceptual model 106*. Thus, Arean does not teach or suggest that the alleged energy distribution curve is approximated to the alleged distribution pattern of noise threshold levels by relatively *adjusting a gain for each frequency band based on a calculated energy distribution curve which connects calculated energy levels*. Suzuki does not cure this deficiency.

Because Arean and Suzuki, alone or in combination do not teach or suggest all of the features of claim 1, Applicants submit that claim 1 is patentable and respectfully request withdrawal of the rejection. Because claims 2, 3, and 5 are dependent on claim 1, Applicants submit that claims 2, 3, and 5, are patentable at least by virtue of their dependency.

Independent claims 6, 7, and 11-13 recite features similar to those discussed above in conjunction with claim 1. Thus, Applicants submit that claims 6, 7, and 11-13 are patentable at least for reasons analogous with those discussed above regarding claim 1. Because claim 10 is dependent on claim 7, and because Jayant does not cure the deficiencies of Arean and Suzuki, Applicants also submit that claim 10 is patentable.

***New Claims***

New claims 14-19 have been added. Applicants submit that these claims are patentable at least by virtue of their dependency on one of claims 1, 6, 7, and 11-13 and because the cited art does not teach or suggest the features recited therein. Specifically, the cited art does not teach or suggest that the approximating of the energy distribution curve to the distribution pattern of noise threshold levels is performed without using the distribution of noise threshold levels calculated by the psychoacoustic model. In contrast, Arean discloses that the quantized coefficients are directly affected by the complex calculation of the psychoacoustic model (col. 12, lines 4-18).

***Conclusion***

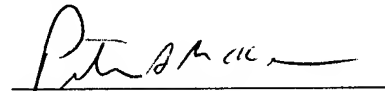
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)  
U.S. Application No.: 10/725,433

Attorney Docket No.: Q77246

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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**23373**

CUSTOMER NUMBER

Date: December 26, 2007